

### REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

After entry of the foregoing amendment Claims 1, 3, 5-9, 21-23, 25-31, 34-35, 38, 41-44, 48-50, 53, 56-59 and 62 are pending in the present application. Claims 10, 29, 32, 33, 36, 37, 39, 40, 45, 47, 51, 52, 54, 55 and 60 are canceled without prejudice or disclaimer. Claims 1, 21, 23, 26-28, 30, 31, 35, 36, 38-44, 47 and 62 are amended, support for non-cosmetic changes is found at least at pages 15-18 of the specification and the originally filed claims. No new matter has been added.

By way of summary, the Official Action presents the following issues: the specification has been objected to as failing to provide proper antecedent basis for claimed subject matter; Claims 1, 3, 5-10, 21-23, 25-45, 47-60 and 62 are objected to as deficient with respect to antecedent basis and improper dependencies; Claims 1, 3, 5-10, 21-23, 25-45, 47-60 and 62 are rejected under 35 U.S.C. §112, first paragraph; Claims 23 and 25-45 stand rejected under 35 U.S.C. §101. Claims 1, 3, 5, 8-10, 21-23, 25-26, 29-33-40, 44-55, 47-55, 59, 60, and 62 stand rejected under 35 U.S.C. 103 as being unpatentable over De Maine et al. (U.S. Patent No. 3,656,178, hereinafter "DeMaine") and further in view of Cellier et al. (U.S. Patent No. 5,884,269, hereinafter "Cellier") and further in view of Witten et al. ("On the Privacy Afforded by Adaptive Text Compression", hereinafter "Witten"); Claims 6-7 and 27-28 stand rejected under 35 U.S.C. § 103 as being unpatentable over De Main, Cellier, Witten and further in view of Shimizu et al. (U.S. Patent No. 6,772,343, hereinafter "Shimizu"); Claims 41-42 and 56-57 stand rejected under 35 U.S.C. § 103 as being unpatentable over De Maine, Cellier, Witten and further in view of Weiss (U.S. Patent No. 5,479,512); and Claims 41, 43, 56 and 58 stand rejected under 35 U.S.C. § 103 as being unpatentable over De Maine,

Cellier, Witten and further in view of Butler et al. (U.S. Patent No. 5,861,887, hereinafter “Butler”).

Applicant thanks the Examiner for the courtesy of the interview extended to the Applicant’s representative on December 12, 2007. During the interview, the rejections noted in the outstanding Official Action were discussed. Specifically, proposed claim changes were presented to the Examiner for overcoming the formal rejections. Specifically, agreement was reached that the language suggested by the Examiner in the Official Action if adopted into the claims, would overcome the outstanding rejection under 35 U.S.C. §112. Moreover, it was agreed that by adding the term “storage medium” to the two Claims 23 and 44 would likewise overcome the rejection under 35 U.S.C. §101. Additionally, the specific language outlined in the Official Action as objected to in view of the specification, it was also discussed and it was agreed that the amendments to the claims as currently presented, seem to address the Examiner’s concerns as to all formal matters. Comments made during the interview are reiterated below.

#### OBJECTIONS TO THE SPECIFICATION

The specification has been objected to under 37 C.F.R. §1.75(d)(1) and M.P.E.P. §608.01(o).

Specifically, the Official Action alleges that the specification fails to provide proper support for the following claim limitations:

“The respective orders of bit combinations of each control code defining control code segments”.

“2<sup>n</sup> different configurations of the input data string”

“Comparing the 2 to the n different configurations of the input data string with one of the control code segments”

“Identifying the 2<sup>n</sup> different configurations of the input data string which correspond to the first one of the control code segments”

As discussed during the interview, the Applicant's have adopted language suggested in the Official Action for overcoming the issues outlined above. More specifically, with respect to the language "2<sup>n</sup> different configurations of the encrypt data string" Applicant's have amended this portion of the claims to recite "2<sup>n</sup> different configurations of n bits within the input data string". This change was discussed with the Examiner during the interview and the Examiner indicated that this amendment would overcome the objections to this portion of the claims. Additionally, Applicant's have amended the claims to recite "with a first one of the control code segments of the identified control code to identify which n bit segments of the input data string corresponds with first n bit segment within the control code" during the interview the Examiner agreed that the adoption of this language, which was suggested in the Official Action of October 9, 2007, would overcome the objections to the claim terminology as they previously related to "control code segments".

Accordingly, Applicant respectfully requests that the objection to the specification be withdrawn.

#### OBJECTIONS TO THE CLAIMS

The Official Action has objected to Claims 1, 3, 5-10, 21-23, 25-45, 47-60 and 62 as including typographical errors and being deficient with respect to antecedent basis as outlined at page 4 of the Official Action. Additionally, Claims 25-45 have been objected to as reciting an improper dependency.

The claims identified at page 4 of the Official Action have been amended to address typographical errors and to modify the dependency language of Claims 25-45.

Accordingly, Applicant respectfully requests that the rejection of Claims 1, 3, 5-10, 21-23, 25-45, 47-60 and 62 be withdrawn.

REJECTION UNDER 112, FIRST PARAGRAPH

The Official Action has rejected Claims 1, 3, 5-10, 21-23, 25-45, 57-60 and 62 under 35 U.S.C. §112, first paragraph. Applicant respectfully traverses the rejection.

As discussed above under the heading “OBJECTIONS TO THE SPECIFICATION” this rejection is believed to be addressed by the amendment to the claims as discussed during the interview.

Accordingly, Applicant respectfully requests that the rejection of Claims 1, 3, 5-10, 21-23, 25-45, 47-60 and 62 under 35 U.S.C. §112, first paragraph be withdrawn.

REJECTION UNDER 35 U.S.C. §101

The Official Action has rejected Claims 23 and 25-45 under 35 U.S.C. §101 as allegedly reciting nonstatutory subject matter.

Applicant has amended the claims to recite “computer readable storage medium”; as such, these claims cover a physical articles, not a signal. As discussed during the interview, it was agreed that by adding the terminology “storage medium” to Claims 23 and 25-45, that this rejection would be overcome. Accordingly, Applicant respectfully requests that the rejection of Claims 23 and 25-45 under 35 U.S.C. §101 be withdrawn.

REJECTION UNDER 35 U.S.C. § 103

The Official Action has outlined rejections of Claims 1, 3, 5, 8-10, 21-23, 25, 26, 29-40, 44-55, and 59-61 under 35 U.S.C. § 103 as being unpatentable over De Maine and Cellier in view of Witten. The Official Action contends that De Maine and Cellier disclose all of the Applicant’s claim features, with the exception of an independently selected control code. However, the Official Action cites Witten as disclosing this more detailed aspect of the Applicant’s claimed advancement and states that it would have been obvious to one skilled in

the art at the time the advancement was made to combine the cited references for arriving at the Applicant's claims. Applicant respectfully traverses the rejection.

Applicant's amended Claim 1 recites, *inter alia*, a method for encrypting an input data string including a plurality of bits of binary data, including:

... providing a control code index in the memory, the control code index being defined prior to encryption at the processing device, the control code index including a plurality of control codes each defining respective orders of bit combinations of binary data, the respective orders of bit combinations of each control code defining control code segments;

determining an order in which to query the presence of each of  $2^n$  different configurations of  $n$  bits within the input data string, the determined order being selected without any analysis of the input data string;

identifying a control code associated with the determined order using the control code index; ...(emphasis added)

De Maine describes four compression techniques (i) Slow Mode Type 1 compression, (ii) Slow Mode Type 2 compression, (iii) Fast Mode Type 1 compression, and (iv) Fast Mode Type 2 compression. Slow Mode Type 1 compression and Slow Mode Type 2 compression, *which begin with an initial analysis of the input data string*.<sup>1</sup> More specifically, those byte configurations that are identified as not appearing in the input data string are designated Type 1 codes and those byte configurations that are identified as appearing more than a certain number of times within the input data string are designated as Type 2 codes. Likewise, in Fast Mode Type 1 and Fast Mode Type 2 compression, a PCORDS table is utilized which is created based upon an analysis of input data string characteristics.

Conversely, in the exemplary embodiment of the Applicant's claimed advancements, a method of encrypting an input data string is provided in which a control code index is provided in memory. The control code index is defined prior to encryption and includes a plurality of control codes each defining respective orders of bit combinations of binary data.

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<sup>1</sup> De Maine at column 91, lines 47-65.

The respective orders of bit combinations of each control code define control code segments.

An order in which to query the presence of each of  $2^n$  different configurations of  $n$  bits within the input data string is determined. **The determined order is selected without any analysis of the input data string.** A position code is generated using an identified control code in cooperation with a position code routine associated with the identified control code. The position code determines positions of each of  $2^n$  different configurations of  $n$  bits in the input data string which  $n$  bit segments of the input data string correspond to a first  $n$  bit segment within the control code. Additional ones of the control code segments are compared in a serial fashion to previously identify ones of the  $n$  bit segments of the input data string. Correspondences to the control code segment comparisons result in output values dictated by the position code routine which defines the generated position code. The identified control code and the generated position code are combined together as components of an encrypted data string.

As De Maine describes the identification of Type 1 or Type 2 codes upon analysis of an input data string, it does not disclose or suggest determining an order which is selected independent of any analysis of the  $n$  bits of the input data string nor identifying a control code associated with the determined order using the control code index. Likewise, as neither Cellier nor Witten, alone or in combination remedy the deficiency discussed above, Applicant's respectfully submit that a *prima facie* case of obviousness has not been presented.

Accordingly, Applicant respectfully requests that the rejection of Claims 1, 3, 5, 8-10, 21-23, 25, 26, 29-40, 44-55, and 59-61 under 35 U.S.C. § 103 be withdrawn.

The outstanding Official Action has rejected Claims 6, 7, 27, and 28 under 35 U.S.C. §103 as being unpatentable over De Maine, Cellier and Witten as applied to Claims 5 and 26, respectively, and further in view of Shimizu. The Official Action contends that De Maine,

Cellier and Witten disclose all of the Applicant's claim features, with the exception of generating a random block size. However, the Official Action cites Shimizu as disclosing this more detailed aspect of the Applicant's claimed advancement and states that it would have been obvious to one skilled in the art at the time the advancement was made to combine the cited references for arriving at the Applicant's claims. Applicant respectfully traverses the rejection.

As neither De Maine, Cellier nor Witten alone, or in combination, disclose all of the features of the Applicant's amended claims, and as Shimizu does not remedy the deficiency discussed above, Applicant respectfully submits that a *prima facie* case of obviousness has not been presented.

Accordingly, Applicant respectfully requests that the rejection of Claims 6, 7, 27, and 28 under 35 U.S.C. § 103 be withdrawn.

The outstanding Official Action has rejected Claims 41, 42, 56, and 57 under 35 U.S.C. § 103 as being unpatentable over De Maine, Cellier and Witten as applied to Claim 1, and further in view of Weiss (U.S. Patent No. 5,479,512). The Official Action contends that De Maine, Cellier and Witten disclose all of the Applicant's claim features, with the exception of XOR'ing coded data. However, the Official Action cites Weiss as disclosing this more detailed aspect of the Applicant's claimed advancement and states that it would have been obvious to one skilled in the art at the time the advancement was made to combine the cited references for arriving at the Applicant's claims. Applicant respectfully traverses the rejection.

As neither De Maine, Cellier nor Witten, alone, or in combination, disclose all of the features of the Applicant's amended claims, and as Weiss does not remedy the deficiency discussed above, Applicant respectfully submits that a *prima facie* case of obviousness has not been presented.

Accordingly, Applicant respectfully requests that the rejection of Claims 41, 42, 56, and 57 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present Application, including Claims 1, 3, 5-9, 21-23, 25-31, 34-35, 38, 41-44, 48-50, 53, 56-59, and 62, is patently distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.


Respectfully submitted,

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